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### Abstract

The TFW Monitoring Program method manual for the Large Woody Debris (LWD) Survey provides a standard method for assessing and monitoring the quantity and quality of large woody debris. The LWD Survey has two methods for measuring the amount of large woody debris at the TFW stream segment scale. The relatively quick Level 1 method quantifies the number of pieces in each of several size class categories and by bankfull channel zone. The Level 2 method collects more detailed information on individual pieces including piece count, volume by bankfull channel zone, whether it is deciduous or conifer, and stability. In addition, LWD jam information is collected for both Level 1 and Level 2 Surveys. The Jam method collects information on jam and piece count, number of jams by bankfull channel zone, and number of pieces per jam in each of several size class categories. Association with a Reference Point Survey provides information on piece and jam distribution. Optional key piece information can be collected for the Level 1 and Jam methods and is calculated in the database for Level 2 pieces. TFW data management services provides basic analysis of LWD data at 100 meter (except Level 1) and stream segment scales. Standard calculations include the number of pieces and jams per channel width and kilometer.

This introduction section describes the purpose of the LWD Survey, reviews scientific background information, and describes the cooperator services provided by the TFW Monitoring Program. Following the introduction, sections are presented in order of survey application including: study design, pre-survey preparation, stream discharge measurement, survey method, post-survey documentation, data management, and references. An extensive appendix is also provided that includes: copy masters of field forms; examples of completed field forms; a field criteria and code sheet; a standard field and vehicle gear checklist; and data management examples.

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## Copying of the Method Manual

All TFW Monitoring Program method manuals are public documents. No permission is required to copy any part. The only requirement is that they be properly cited. Copies of the methods manuals are available from the TFW Monitoring Program at the Northwest Indian Fisheries Commission or from the Washington Dept. of Natural Resources.

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